

REMARKS/ARGUMENTS

Claims 1-22 were pending in the present application. By virtue of this response, claims 1, 4, 7, 8, 12-14, and 18 have been amended. Amendment and cancellation of certain claims is not to be construed as a dedication to the public of any of the subject matter of the claims as previously presented. The Applicants expressly reserve the right to file continuation and divisional applications claiming priority to the present application.

An Abstract has been provided as shown in the Amendments to the Specification and on a separate piece of paper attached hereto, as requested by the Examiner.

Support for the amendment of claims 1, 4, 7, 8, 12-14, and 18 can be found throughout the specification and claims as originally filed and, in particular on page 2, line 23 through page 3, line 10; page 4, lines 2-6; page 5, lines 14-25; page 6, lines 1-18; page 7 in its entirety; page 11, lines 6-10; page 16, lines 7-22 and page 19, lines 1-4. Amendment of claim 20 corrects an obvious typographical error. No new matter is believed to have been added.

Regarding the Information Disclosure Statement

The Applicants thank the Examiner for review of the cited references and return of the initialed form PTO-1449.

Rejections under 35 U.S.C. § 102(b)

Claims 1-4, 7-11 and 14-18 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by WO 97/47645. The Applicants traverse this rejection and further assert that the rejection of claims of the present application over WO 97/47645 under 35 U.S.C. §102(b) is improper. The reference does not meet the requirement of having been “printed” more than one year prior to the effective U.S. filing date for the present application.

As stated by the Examiner on page 2 of the Office Action, the Applicant’s claim for priority of the present application based on U.S. Provisional Patent Application Serial No.

60/098,267 has been granted, thereby according the present application an effective U.S. filing date of August 28, 1998. The international publication date of the reference is December 18, 1997, less than one year prior. Further, due to the international filing date of the reference (June 10, 1997) the reference, as an International Application, cannot be considered under 35 U.S.C. §102(e) (revised). Accordingly, the reference can only be considered under 35 U.S.C. §102 (a). The Applicant requests that the record be updated to reflect these facts. However, in order to expedite prosecution, the Applicant has addressed below the Examiner's comments with regard to the novelty of the claims under 35 U.S.C. §102.

The Applicant asserts that WO 97/47645 does not teach each of the limitations of independent claims 1, 7 and 14, as amended, and therefore does not anticipate claims 1, 7 and 14, as amended, nor their corresponding dependent claims. Specifically, claims 1-4, 7-11 and 14-18 require that the adduct is *more water soluble* than the parent peptide from which the adduct is formed, as is clearly recited in the claims (see also pages 5-7 and 12-14). The cyclic boronate ester (adduct) disclosed in WO 97/47645, a non-polar unsubstituted phenyl boronate ester (a trigonal, non-charged species) instead increases solubility in *organic* solvents for subsequent synthetic steps. The boronate ester of WO 97/47645 is actually *less water soluble* than the parent peptide from which it is formed, and therefore does not meet the limitations of claims 1, 7 and 14, as amended, nor their dependent claims.

In light of the above remarks, the Applicant respectfully requests withdrawal of the rejection of claims 1-4, 7-11 and 14-18 under 35 U.S.C. § 102(b).

Rejections under 35 U.S.C. § 103(a)

Claims 1-22 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Jamison et al., (The Journal of Antibiotics, Vol. 51, No. 2, pp. 239-242, 1998) taken with Balkovec et al., (U.S. Patent No. 5,378,804) and WO 97/47645. The Applicant traverses this rejection and submit that the Examiner has not established a *prima facie* case of obviousness.

The Examiner cites Jamison *et al.*, as the primary reference and in the Office Action states:

The reference of Jamison *et al.*, discloses on Figure 1, the use of a reversible cyclic peptide adduct having the structure of aminophenyl group. On pages 240-241, the reference discloses the isolation, purification ...comprising adding a 1,2-cis-diol cyclic peptide *to an aqueous solution of a boric or boronic acid* by adjusting the pH of the solution at about 7 pH to a value sufficient for complexation of the cyclic peptide adduct. The primary reference of Jamison *et al.* differs from claims 1-22 in not teaching the use of a pharmaceutical formulation comprising a reversible adduct having.... (Office Action, page 5, 1st ¶)(Emphasis Added).

Thus it would have been obvious to one of ordinary skill in the art to incorporate the primary reference's teachings of reversible borate or boronate complexes of 1,2-cis-diol cyclic peptide adduct having the structure of aminophenyl group and their use.... (Office Action, page 6, 1st ¶)

However, the Applicant fails to find *any* mention of boric or boronic acids, borate or boronate complexes in Jamison *et al.*, the primary reference relied upon. Pages 240-241 of Jamison *et al.*, cited by the Examiner, appear to describe the synthesis and *in vitro* and *in vivo* testing of the compounds depicted in Figure 1, but these compounds do not appear to incorporate a boron atom *any where*. Thus the primary reference completely lacks any explicit or implicit teaching or suggestion of the reversible Echinocandin peptide adducts as claimed, let alone their methods or formulations for use.

Balkovec *et al.*, a secondary reference, also does not teach or suggest the reversible adducts as claimed. The Examiner merely suggests that this reference teaches the use of azacyclohexapeptide compounds as useful antifungals.

As described above with respect to WO 97/47645 in conjunction with the 35 U.S.C. §102 rejection above, the boronate ester of this reference does *not* meet the limitations of the claims with respect to relative solubility of the adduct and parent peptide and there does not appear to be any suggestion in either of the other cited references to modify the selection of the boronate ester used to achieve the relative water solubility recited in the claims. Further, the specification of the present

application notes that it was surprising that the claimed adducts showed significantly increased solubility in aqueous solutions compared to the parent peptides (see bridging paragraph, pages 2-3).

A *prima facie* case for obviousness requires, according to MPEP 706.02(j), that there be some motivation to combine references, a reasonable expectation of success, *and* when combined, the references must teach or suggest *all* of the claim limitations. As remarked upon above, the cited references *do not* teach or suggest, alone or in combination, the adducts as claimed and therefore cannot serve as the basis for a rejection of claims 1-22 under §103(a).

In light of the above remarks, the Applicant respectfully requests withdrawal of the rejection under §103(a).

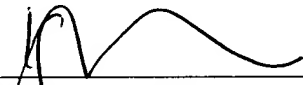
CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conversation would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicant(s) petition(s) for any required relief including extensions of time and authorizes the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 342312001600. However, the Assistant Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

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Respectfully submitted,

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